CULTURAL RESOURCES SURVEY OF THE NEW BURKE ROAD 69kV DISTRIBUTION SUBSTATION, CALHOUN COUNTY, SOUTH CAROLINA

Prepared By:
Michael Trinkley, Ph.D.
and
Nicole Southerland

Prepared For:
Mr. Tommy L. Jackson
Central Electric Power Cooperative, Inc.
PO Box 1455
Columbia, SC 29202

CHICORA RESEARCH CONTRIBUTION 373

Chicora Foundation, Inc.
PO Box 8664
Columbia, SC 29202-8664
803/787-6910
Email:chicora@bellsouth.net
www.chicora.org

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ABSTRACT

This report provides the results of a cultural resources investigation of approximately 2.8 acres of land to be used for the placement of a distribution substation situated in western Calhoun County, South Carolina. The study was conducted to assist Central Electric Power Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The tract is to be used by Central Electric Power Cooperative for the construction of the New Burke Road Distribution Substation, which is actually an expansion of an existing facility. The proposed substation will be constructed to the north and to the west of the existing substation, which will be incorporated into the facility. The work is situated next to an existing transmission line and is located on Cartwright Road.

The proposed undertaking will require the clearing of the tract, followed by construction of the proposed facility. These activities have the potential to affect archaeological and historical sites and this survey was conducted to identify and assess archaeological and historical sites which may be in the project area. For this study an area of potential effect (APE) 0.5 mile around the proposed substation was assumed. It should be noted that the area is currently affected by an existing transmission line and substation.

Consultation with the S.C. Department of Archives and History revealed no previously identified NRHP sites or previously surveyed architectural sites within the 0.5 mile APE. An investigation of the archaeological site files at the S.C. Institute of Archaeology and Anthropology also failed to identify any sites.

The archaeological study of the tract incorporated shovel testing at 100-foot intervals on transects which were placed at 100-foot intervals. All shovel test fill was screened through ¼-inch mesh and the shovel tests were backfilled at the completion of the study. A total of 17 shovel tests were excavated along seven transects in the survey tract. No archaeological sites were identified as a result of these investigations.

A survey of public roads within 0.5 mile of the survey area was conducted in an effort to identify any architectural sites over 50 years old which also retained their integrity. No such structures were located.

It is possible that archaeological remains may be encountered in the project area during construction. Construction crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Tommy Jackson of the Central Electric Power Cooperative. The work was conducted to assist Central Electric Power Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of a tract of land measuring approximately 2.8 acres, situated in the western portion of Calhoun County (Figure 1). The substation is situated next to an existing transmission line and substation (Figure 2).

The tract consists of a flat area of land that was a mixed pine and hardwood forest, but had been cleared for this survey. The surrounding area still remains rural with little development occurring in the region.

The proposed tract, as previously mentioned, is intended to be used as a 69kV distribution substation. Landscape alteration, primarily clearing and construction, including erection of new transformers (about 30 feet in height – similar to those in the existing facility), and long-term maintenance of the substation, will cause complete damage to the ground surface and any archaeological resources which may be present in the survey area.

Construction, operation, and maintenance of the substation may also have an impact on historic resources in the project area. Although the project will not remove any structures, substations (as well as other above grade projects) may detract from the visual integrity of historic properties, creating what many consider discordant surroundings. As a result, this architectural survey uses an area of potential effect (APE) about 0.5 mile in diameter around the proposed facility. It is important, however, to note that this project involves the expansion of an existing facility – not the creation of a new one in an otherwise pristine area.

This study, however, does not consider any future secondary impact of the project, including increased or expanded commercial or industrial development of this portion of Calhoun County.

We were requested by Mr. Tommy Jackson of Central Electric Power Cooperative to conduct a cultural resources survey for the proposed substation on October 4, 2002. This incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology. As a result of that work, no archaeological sites were found within the APE.

In addition, the South Carolina Department of Archives and History GIS was consulted to check for any NRHP buildings, districts, structures, sites, or objects in the study area. No NRHP sites were found within the 0.5 mile APE, although no comprehensive survey has been completed for Calhoun County.

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted November 12, 2002 by Mr. Tom Covington under the direction of Dr. Michael Trinkley and revealed no archaeological sites. Report production was conducted at Chicora's laboratories in Columbia, South Carolina from November 20-22, 2002.

Figure 1. Project vicinity in Calhoun County (basemap is USGS South Carolina 1:500,000).

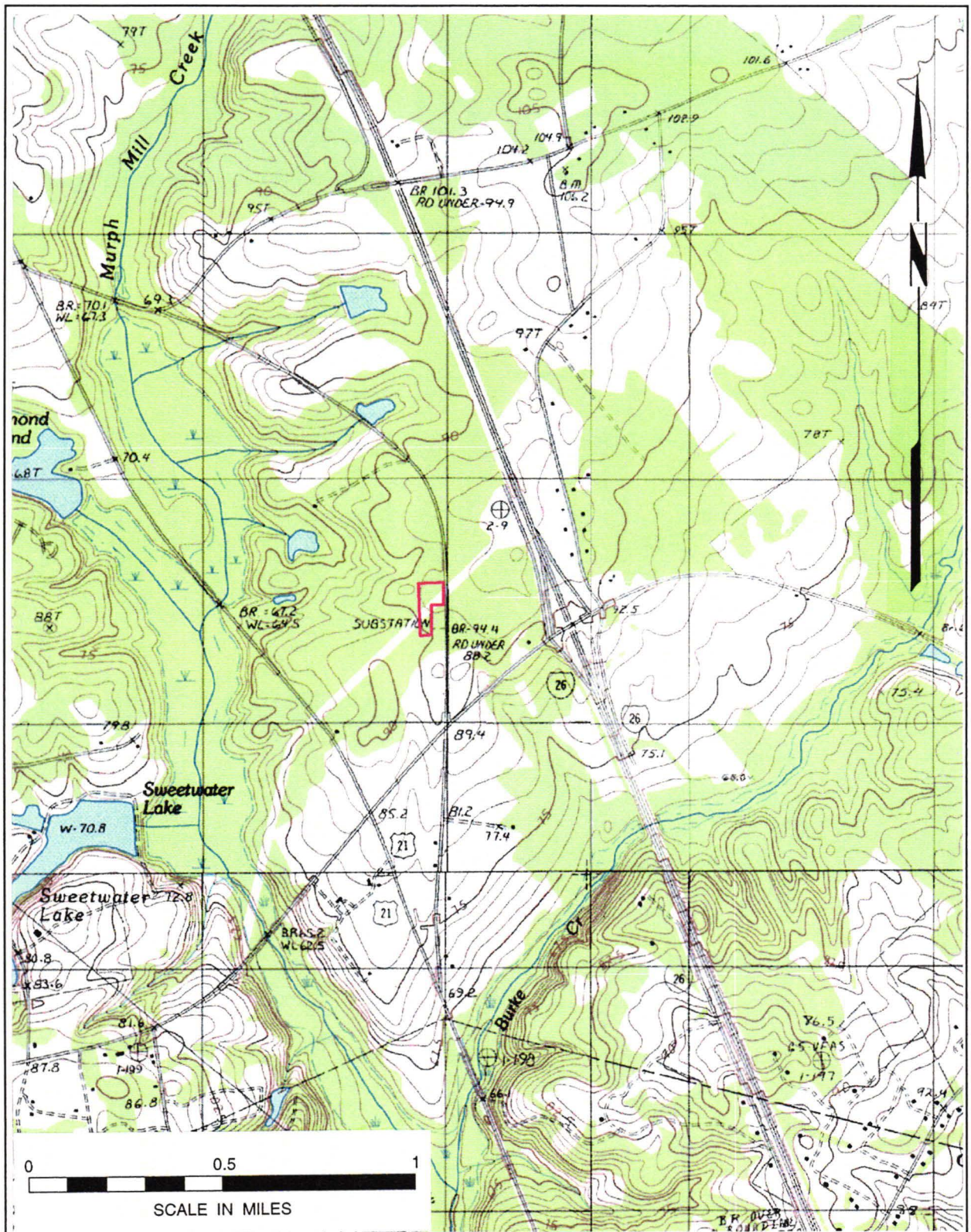

Figure 2. Survey area (basemap is USGS Staley Crossroads 7.5').

NATURAL ENVIRONMENT

Physiography and Geology

The survey tract is situated in the Upper Coastal Plain, south of the Fall Line and the Sand Hills found along the northern and western edges of the County. Elevations in the Upper Coastal Plain range from 100 to 270 feet above mean sea level (AMSL), with the topography being gently rolling. As Kovacik and Winberry (1987:20) observe, it can be very difficult to distinguish the Upper Coastal Plain from that of the Sand Hills or even the lower Piedmont. You find the flatter, and almost featureless, Coastal Plain topography further to the southeast, south of the Citronelle Escarpment (Orangeburg Scarp).

Calhoun County is drained primarily by the Congaree River, which flows southeastwardly along its northern border with Richland County. Other significant drainages include the Caw Caw Swamp, which flows southeastwardly into the North Fork of the Edisto River, and Halfway Swamp Creek which drains much of the southern portion of the County, eventually flowing into the Congaree River.

Mills also comments on the numerous creeks and rivers of the Orangeburg District (of which Calhoun County was a part at that time). He notes that many were navigable (Mills 1972 [1826]:664-665) and the highest quality lands are situated along the Edisto. Since the area was subject to flooding, however, relatively little of the land was in active cultivation. He remarks that, "owing to their being so narrow, they would require expensive embankments, which would probably not be repaid in the value of the land thus reclaimed" (Mills 1972 [1826]:659).

Mills also comments that "Orangeburg lies within the alluvial region entirely; the upper edge just dipping into the primitive or granite region" (Mills 1972 [1826]:657). Today we recognize that this "upper region" lies outside the boundaries of Calhoun County, which includes only the Upper Coastal Plain and a small portion of the Sand Hills. We also recognize the complex geology of the Upper Coastal Plain where there are bedded

Figure 3. View of the cleared survey tract.

sands overlaying kaolintic clays and clayey, quartzose sands (Murphy 1995:93).

In this stone poor section of the state the nearest source of lithic materials for Native Americans would be the metamorphic and volcanic rocks of the Carolina Slate Belt which outcrop to the north of the survey area in Anson County, North Carolina and west along the fall line in southeastern Lancaster, northern Chesterfield, and Kershaw Counties in South Carolina. Far closer are occasional deposits or outcrops of cherts and orthoquartzites (see Anderson et al. 1973:11-12).

Soils

Mills commented that the Orangeburg district included a variety of soils. Most were described as having "a light, sandy nature, thin soil, but bottomed on clay" (Mills 1972 [1826]:658). this clay bottom helps minimize the droughty nature of the sandy soils, many of which are characterized as excessively well drained. along the Congaree and Santee Rivers he observed a very different soil, described as "a stiff, red clay" found on rolling hills – a description of a small area of the piedmont.

While a small portion of Calhoun County, forming a wedge along the Lexington County line, is within the Sand Hills, most of the region is within the Coastal Plain. These soils, including those found in the survey vicinity, are primarily the Norfolk-Ruston-Lakeland soils and the Magnolia-Faceville-Ruston association. These former soils are found on gently sloping to strongly sloping areas (Lawrence 1963). In general these soils consist of sandy upper horizons on top of yellowish-brown or yellowish-red subsoils.

The survey area is situated entirely on Lakeland sands (Lawrence 1963). These are deep, excessively drained soils that are sandy throughout. A typical profile reveals about 0.5 foot of very dark grayish-brown (10YR3/2) sand overlying a yellowish brown (10YR5/6) sand to a depth of 1.8 feet.

Historically sandy soils have been recognized to have low fertility. During the early nineteenth century, Mills commented that local farmers were beginning to more aggressively deal with the nutritional deficiencies of the soil:

> The planters now improve their lands by manuring the corn hills either with cotton seed or swamp mud, throwing up in pens in the fall season, to remain during the winter. By mixing with it cotton seed, stable manure, or decayed vegetables, its fertilizing qualities are greatly increased (Mills 1972 [1826]:660).

Floristics

In the early nineteenth century Mills comments that the river lands – especially those adjacent to the Edisto – were dominated by "the magnolia, beech, willow, ash, elm, oak, birch, walnut, and hickory" while in the deeper swamp were "large groups of cypress, loblolly, bay, sweet bay, maple, tupelo, and poplar trees of an immense height and circumference" (Mills 1972 [1826]:658). In contrast, the uplands were dominated by pines.

This situation is largely unchanged today. On the bluffs overlooking the rivers there is a pine-hardwood community dominated by loblolly pine, hickory, and various oaks. On the lower slopes the vegetation is dominated by species tolerant of the wetter conditions, such as white oak, sweet gum, willow oak, and black gum. In the river floodplains there are sweet gum, laurel oak, water hickory, and tupelo (Kovacik and Winberry 1987:45).

The survey area, before being cleared for this project, was covered in a mixed pine and hardwood forest. Much of the area surrounding the project is also covered with these upper elevation forests.

Climate

Like elsewhere in the state, Mills distinguished between the swamp lands and the sand lands in his assessment of Orangeburg's health:

> the sandhill section of this district

> presents as fine and healthy a climate as any country can boast of. Diseases are rare here . . . . Along the margins of the creeks and rivers, and within the influence of swamps, bays, and stagnant ponds, fevers and agues, bilious remittents, typhus, and other inflammatory diseases prevail (Mills 1972 [1826]:664).

This portion of South Carolina is dominated by the movement of systems across the country, but there are relatively few complete exchanges of air masses in the summer. This results in few breaks in the midsummer heat, with temperatures ranging from the high 80s to the low 90s. In contrast, winters are mild and relatively short. There are 45 inches of annual precipitation, with nearly 27 inches falling in the growing season (Lawrence 1963:127).

PREHISTORIC AND HISTORIC BACKGROUND

Previous Research

Calhoun County may be one of the least well studied counties in South Carolina. There are, for example, only six reports for the county listed by Derting et al. (1991). Of these, two are surveys or plans by the Lower Savannah Council of Governments which contain virtually no substantive archaeological information. Two other reports both concern site 38CL4, as site at which the S.C. Institute of Archaeology and Anthropology conducted brief test excavations in the early 1970s, and the two remaining reports involve brief archaeological surveys – with only one of these reports identifying any archaeological resources (Smith 1977). More recently, a survey was performed to the east of the current project, but even that survey failed to produce any sites (Trinkley 2000).

Prehistoric Overview

The Paleo-Indian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977). The Paleo-Indian occupation, while widespread, does not appear to have been intensive. Points usually associated with this period include the Clovis and several variants, Suwannee, Simpson, and Dalton (Goodyear et al. 1989:36-38).

At least one Paleo-Indian point has been found in the Calhoun area, reportedly from the Little Bull Swamp Creek drainage (Goodyear et al. 1989:33). This pattern of artifacts found along major river drainages has been interpreted by Michie to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna" (Michie 1977:124).

Unfortunately, little is known about Paleo-Indian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleo-Indian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

The Archaic period, which dates from 8000 to 1000 B.C., does not form a sharp break with the Paleo-Indian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. The chronology established by Coe (1964) for the North Carolina Piedmont may be applied with little modification to the Calhoun County area. Archaic period assemblages, characterized by corner-notched, side-notched, and broad stemmed projectile points, are common in the vicinity, although they rarely are found in good, well-preserved contexts.

The Woodland period begins, by definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast, about 1000 B.C. in the Upper Coastal Plain, and much later in the Carolina Piedmont, perhaps 500 B.C. It should be noted that many researchers call the period from about 2500 to 1000 B.C. the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of terminology, the period from 2000 to 500 B.C. was a period of tremendous change.

The subsistence economy during this early period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish. Various calculations of the probable yield of deer, fish, and other food sources identified from some coastal sites indicate that sedentary life was not only possible, but probable. Further inland it seems

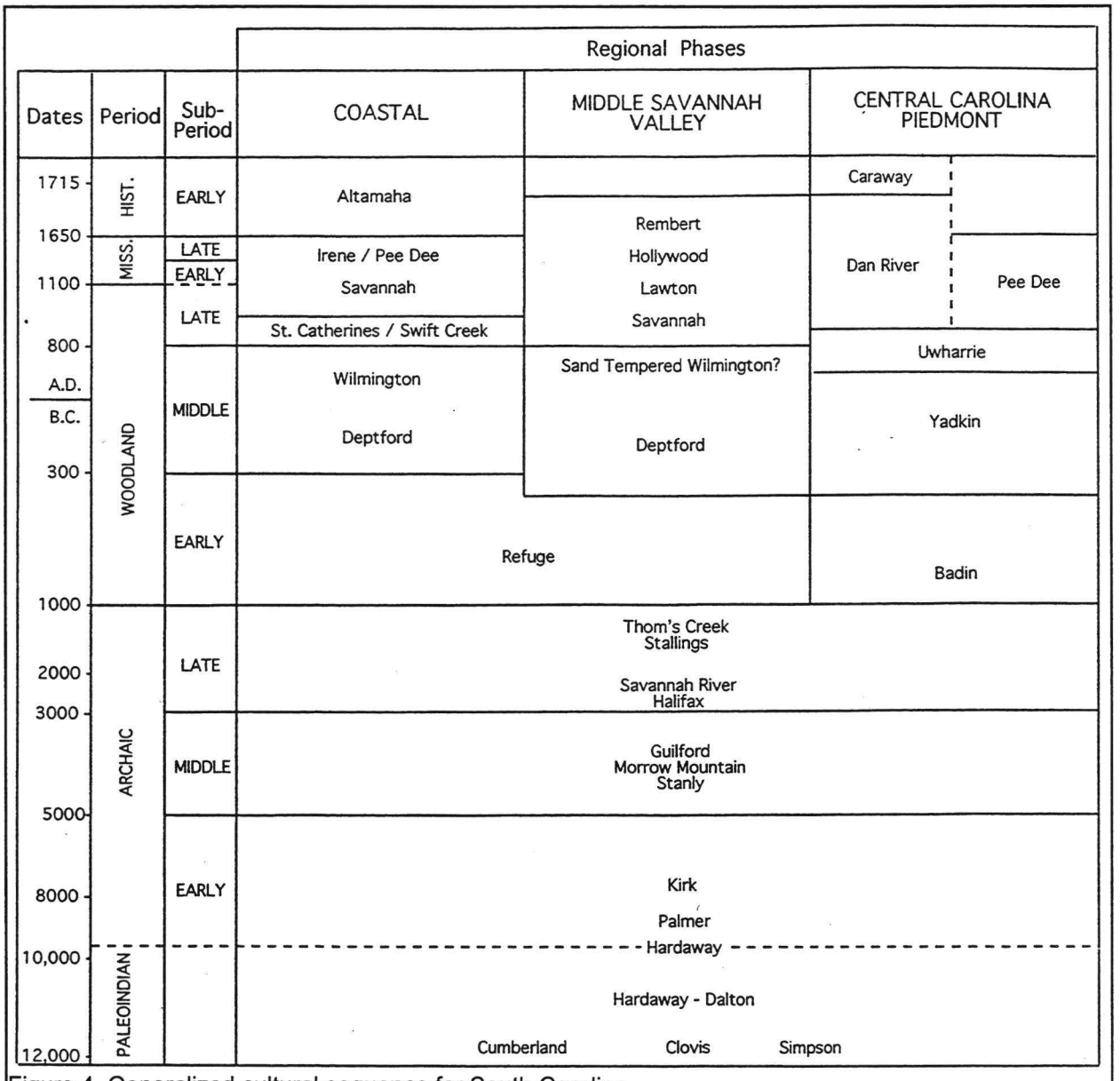

Figure 4. Generalized cultural sequence for South Carolina.

likely that many Native American groups continued the previous established patterns of band mobility. These frequent moves would allow the groups to take advantage of various seasonal resources, such as shad and sturgeon in the spring, nut masts in the fall, and turkeys during the winter.

The South Appalachian Mississippian period, from about A.D. 1100 to A.D. 1640 is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest coastal phases are named the Savannah and Irene (known as Pee Dee further inland) (A.D. 1200 to 1550).

However little we know about the various

small coastal tribes, considerably less is known about the protohistoric and historic tribes in the Upper Coastal Plain. The study area is, in very general terms, situated between the Congaree and Santee. Mooney (1894:80) devotes a modest two paragraphs to the Congaree and only slightly more to the Santee.

He notes that in 1701, Lawson found the Congaree "on the northeastern bank of the river below the junction of the Wateree" (Mooney 1894:80). In fact, Lawson's account (Lefler 1967:33-35) is the most detailed available for the tribe. He describes their town as consisting "not of above a dozen Houses, they having other stragling Plantations up and down the Country." He reported that they had lost much of their population to smallpox and other European diseases; in spite of this the Congarees were reported to be "kind and affable to the English, the Queen being very kind, giving us what rarities her Cabin afforded, as Loblolly [a thick gruel] made with Indian Corn, and dry'd Peaches" (Lefler 1967:35). Taukchiray suggests that this village was located on Pinetree Creek, although no archaeological effort has been made to locate the settlement (Hicks 1998:48).

Mooney reports that by 1715 their settlements had shifted to the south bank of the Congaree, perhaps on Big Beaver Creek (Mooney 1894:80). Taukchiray expands on this, suggesting "in 1712-1715, the Congaree lived on Congaree River — first on the west side (now Calhoun County), then on the east side (now Richland County)" with some "on the north/northeastern side of upper Congaree River around Gills and Mill Creeks, on the outskirts of present-day Columbia" (Hicks 1998:50).

The 1715 Yemassee War further reduced their numbers and destabilized their society. Taukchiray suggests that they left their Congaree heartland in late 1716 and moved to the "northwest side of the Waccamaw River in what is now Horry County" (Hicks 1998:50). They stayed in this area until joining the Catawba about 1736. Although largely amalgamated by the Catawba, Taukchiray reports that at late as 1760 one of the Catawba headmen was known to the English as "Congaree Jimmy" (Hicks 1998:50).

For the Santee we know that Lawson found them in the vicinity of the Santee Indian mounds in 1701 (Lefler 1967:25-29; Mooney 1894:79). Again the tribe is reported to live in small hamlets, with Lawson remarking, "there being Plantations lying scattering here and there, for a great many Miles" (Lefler 1967:25). In fact, the settlements continued up river at least to Jacks Creek, and there were hunting camps at least as far up as the High Hills of Santee (Hicks 1998:30).

Mooney reports that just prior to the Yemassee War there were still two village about 70 miles from Charleston and perhaps as many as 160 individuals (Mooney 1894:80). Taukchiray provides a little more detail, revealing that the remains of the tribe were captured by the English and Etiwan Indians and transported to Charleston. There the men were shipped to the West Indies as slaves and the women and children were turned over the Etiwans as slaves (Hicks 1998:30), marking the end of the tribe.

Historic Synopsis

The earliest settlement in the area appears to have begun with the 1704 grant to Robert Sterling of 570 acres on Lyons Creek — in what is today Calhoun County. Situated about 4 miles south of St. Matthews on the Charleston Road, this seems to have served as a focus for additional settlement, largely by English and French Huguenots, who came to the area between 1735 and 1737 (DeFrancesco 1988:1; Mills 1972 [1826]:656-657).

Settlement in the area was also spurred by the township plan of Governor Robert Johnson in the 1730s. The Amelia Township was situated on the west bank of the Congaree and Santee rivers, with the town site situated at the mouth of the Congaree. Settlement was particularly attracted to the areas of Buckhead, Lyons, and Halfway Swamp Creek (Smith 1977:9). It wasn't until the late 1740s that Amelia began to grow, but it quickly became a planters' parish and by 1757 the population had grown to 700 (Meriwether 1940:49-50). With the end of the Cherokee threat in 1761 the area attracted a second round of growth, with many small planters and farmers coming to the Wateree's west bank, below the

shoals (Central Midlands Regional Planning Council 1974:142).

Further to the south the Orangeburg Township was located on the east bank of the North Fork of the Edisto River, bordering Amelia to the north. The middle and upper sections, notably along the rivers, provided excellent agricultural land and this settlement attracted a variety of German and Swiss settlers. By 1740 the population had reached 500 (Meriwether 1940:45-46).

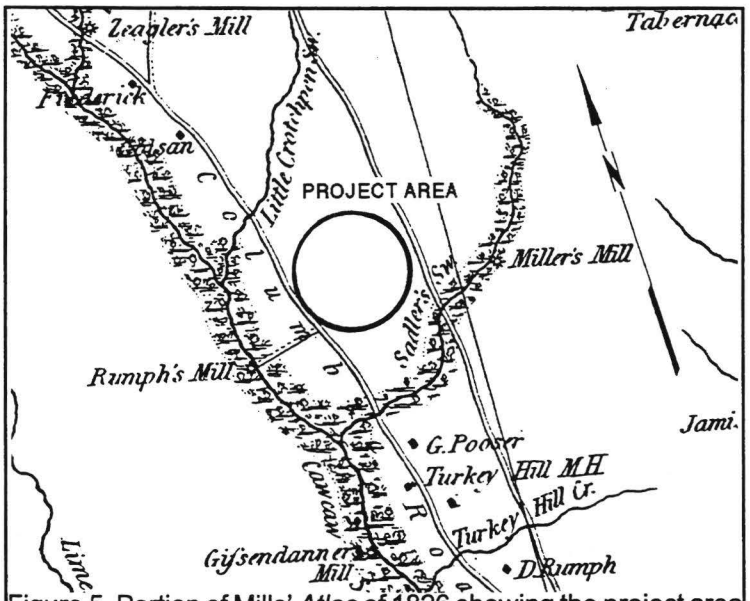

Figure 5. Portion of Mills' *Atlas* of 1826 showing the project area in the Orangeburg District.

Originally part of Orangeburg District, the 1785 act divided the district into Lewisburg (along the river), Orange, Lexington (to the north), and Winton (an early version of Barnwell along the Savannah). These counties, however, were abolished in 1791 and the Orangeburg District was reinstituted. By 1804, however, the district was again subdivided, this time into Lexington (1804), Orangeburg, and Barnwell (1800). Consequently, by the time Mills discussed the region in 1820, Orangeburg was an elongated district and Mills observed that, "its figure is very irregular, having a kind of peninsula, or long narrow strip, running between two rivers, upwards of twenty-six miles from the main body of the district" (Mills 1972 [1826]:657).

During the Colonial period Orangeburg was at best a small village, containing several taverns and stores, a courthouse, a jail, both a Lutheran and an Anglican church, and a few small residences (Edgar 1998:163). The jail, built in 1770, was the one which General Sumter:

> besieged and took, during the revolutionary war. The British had a garrison there consisting of 70 militia and 12 regulars. This village was for some time the seat of war. After Lord Rawdon had retreated from Camden, he took up his quarters here, whither he was pursued by Gen. Green, who offering him battle; but his lordship, secure in his strong hold, would not venture out; and Gen. Green was too weak to attack him in his works, with any prospect of success (Mills 1972 [1826]:662-663).

It was also during this same campaign that General Green and his partisans attacked and took over Fort Motte (in what is today Calhoun County) (Edgar 1998:237).

By the second quarter of the nineteenth century there were only three settlements in Orangeburg. The village of Orangeburg was "not favorably situated for health" according to Mills, although it was "tolerably central to the district." The second was the village of Poplar Spring, about 4.5 miles west of Orangeburg and used primarily as a summer residence. The third settlement was the village of Totness, on the north side of High Hill Creek, about 3 miles from the Congaree River. It, too, was primarily a summer village for the planters, which Mills described as "pleasant . . . and much frequented" (Mills 1972 [1826]:663).

Between 1800 and 1820 the population of the Orangeburg District had increased by over a third, from 10,155 to 15653. But the proportion of white increase was modest, from 5,957 in 1800 to 6,760 in 1820. The African American slave

population, however, had more than doubled, from 4,110 to 8,829. This clearly documents the rise of plantations in the region, primarily along the rivers where the best lands were situated. Although Mills comments that there was a lively timber export trade from the district and that the German settlers "made a decent living" from growing corn, "cotton engrosses most attention" (Mills 1972 [1826]:660). It was certainly cotton which supported the increase in African American bondage in the region.

Table 1.
Systems of Tenure

	Share-Cropping	Share Renting	Cash Renting
Landlord furnishes:	land housing fuel tools work stock seed half of fertilizer feed for stock	land housing fuel ¼ or ⅓ fertilizer	land housing fuel
Tenant furnishes:	labor half of fertilizer	labor work stock feed for stock tools seed ¾ or ⅔ fertilizer	labor work stock feed for stock tools seed fertilizer
Landlord receives:	½ of crop	¼ or ⅓ of crop	fixed amount in cash or lint cotton
Tenant receives:	½ of crop	¾ or ⅔ of crop	entire crop less fixed amount

The 1826 Mills' *Atlas* shows no structures in the project area, although a road does run through the site (Figure 5).

By 1850 the population had increased to 18,519, with 15,384 (83%) of these being African American slaves. Orangeburg had 1,206 farms, with an average of 150 improved acres. The district produced 614,418 bushels of Indian corn, ranking it 13th (out of 29). Also produced were 1,299,379 pounds of rice, ranking Orangeburg fifth in the state, behind fourth ranked Charleston with 16,906,273 pounds, but ahead of sixth ranked Anderson District (with 956,940 pounds). In spite of the slave population, Orangeburg District produced only 10,024 bales of cotton, ranking it thirteenth (DeBow 1854). Lawrence observed that while wheat was grown, it was affected by rust in the late antebellum and stopped being produced until rust-resistant varieties were introduced after the Civil War. He, too, reports that the region's attention was focused on cotton, which remained the area's primary crop until the mid-twentieth century when its prominence was shattered by soybeans (Lawrence 1963:128).

Orangeburg saw little impact from the Civil War until the end, when Sherman's troops came up the north side of the Edisto, followed the North Fork into the city of Orangeburg, which was burned, and then continued north into what is today Calhoun County, crossing over the Santee River (Glatthaar 1985).

After the Civil War, with slaves no longer providing easy labor for the cotton plantations, the economy was stagnant and a slow period of rebuilding began. The remaining decades of the nineteenth century were focused on the dual goals of restoring the economy and ensuring that African Americans remained in a state as closely as possible resembling bondage.

The hiring of freedmen began immediately after the war, with variable results. The Freedmen's Bureau attempted to establish a system of wage labor, but the effort was largely tempered by the enactment of the Black Codes by the South Carolina Legislature in September 1865. These Codes allowed nominal freedom, while establishing a new kind of slavery, severely restricting the rights and freedoms of the black majority. Added to the Codes were oppressive contracts which reinforced the power of the plantation owner and degraded the freedom of the Blacks. Many white planters formed "Democratic Clubs," designed to counter the "radical" influence. Members of these clubs resolved not to hire

"radicals," or blacks associated with radical politics.

While cash labor was initially used, gradually owners turned away from wage labor contracts, at least partially because of the scarcity of money, but also because of the prevailing belief among whites that blacks were so lazy that with money in their pockets they would not work. In its place two kinds of tenancy — sharecropping and renting — developed. While very different, both succeeded in making land ownership very difficult, if not impossible, for the vast majority of Blacks.

Sharecropping required the tenant to pay his landlord part of the crop produced, while renting required that he pay a fixed rent in either crops or money. In sharecropping the tenant supplied the labor and one-half of the fertilizer, the landlord supplied everything else — land, house, tools, work animals, animal feed, wood for fuel, and the other half of the needed fertilizer. In return the landlord received half of the crop at harvest. This system became known as "working on halves," and the tenants as "half hands," or "half tenants."

In share-renting, the landlord supplied the land, housing, and either one-quarter or one-third of the fertilizer costs. The tenant supplied the labor, animals, animal feed, tools, seed, and the remainder of the fertilizer. At harvest the crop was divided in proportion to the amount of fertilizer that each party supplied. A number of variations on this occurred, one of the most common being "third and fourth," where the landlord received one-fourth of the cotton crop and one-third of all other crops. In cash-renting the landlord provided the land and housing, with the renter providing everything else and paying a fixed per-acre rent in cash.

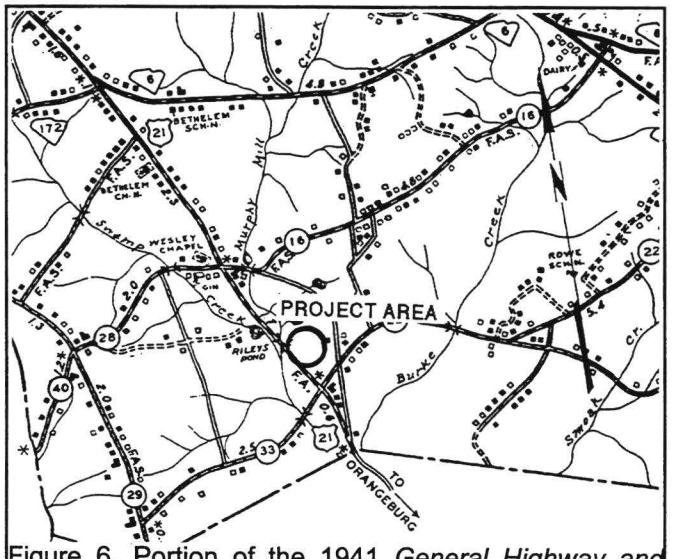

Figure 6. Portion of the 1941 *General Highway and Transportation Map of Calhoun County.*

An 1884 account of the county revealed that while there was only one textile mill (in the town of Orangeburg), there were 112 grist mills scattered across the countryside, along with 31 flour mills. All were using water power. As a vestige of the area's rice cultivation there was also one rice mill. Cash wages, when paid, were $4 to $6 a month, with rations, a house, and a small garden spot. The county had 322 cotton gins, each turning out about 4 bales a day. One of the most interesting observations was that South Carolina prohibition law was not observed and not enforced — apparently liquor flowed freely in Orangeburg (Anonymous 1884).

By 1900 the population of Orangeburg County was 59,663, with African Americans still dominating the population (41,442 or nearly 70%). By this time tenancy had become firmly established — there were 8,408 farms in the county, with an average size of just under 80 acres. Nearly 55% of the farms (n=4,613) were operated by cash tenants.

Nevertheless, Orangeburg recovered with a vengeance. By 1900 the county produced 1,172,520 bushels of corn, ranking it first in corn production. It's nearest competitor was Sumter with 762,120 bushels. Orangeburg also ranked first in cotton, producing 65,433 bales or 0.55 bale per acre (again its closest competitor was Sumter County, which produced 48,485 bales or 0.52 bale per acre). While a certain amount of Orangeburg's success was related to its size, it seems clear that the farms were generally profitably operated.

Calhoun County emerged in 1908, created from parts of Orangeburg and Lexington counties. It was small however, accounting for only 377 square miles. The

population in 1910 was only 16,663.

By 1920 there were 8,558 farms in Orangeburg County, most of which (n=4,037 or 47%) were between 20 and 49 acres in size. Two-thirds of those farms were operated by African Americans. Of the 8,558 farms, 5,644 (66%) were operated by tenants and 37% of these were share tenants, with an additional 25% being croppers. Orangeburg County was dominated by an agriculture focused solely on cotton and designed to maximize profits to owners while minimizing any hope for small farmers — black or white — to ever own land.

The 1920s, however, were the beginning of the end for cotton. Cotton and tobacco prices both collapsed in 1920. This was followed by both droughts and the boll weevil. Edgar observes that in 1930, "after nearly a decade of difficulties, South Carolina agriculture was about to go under. Farmland and buildings had lost more than one-half of their value. One third of the state's farms were mortgaged, and 70 percent of the state's farmers survived on borrowed money" (Edgar 1998:485).

In 1930 over 68% of all farms were operated by tenants. Only a third of these were operated by cash tenants, with the bulk operated by other forms, primarily sharecropping. The mortgage problem was worse in Orangeburg than statewide — fully two-fifths of the farms were mortgaged, with the average mortgage representing more than 40% of the farm's value.

The 1941 *General Highway and Transportation Map of Calhoun County* (Figure 6) does not show any structures in the project area, but many structures are shown contained to the main road system throughout the county.

Cotton production continued to fall, with only a brief upswing during the 1940s as a result of the war effort. By 1954 cotton production was down to 18,474 acres, from 23,800 acres in 1939. By 1959 it had declined to 12,851 acres. The number of farms also declined dramatically – from 1,749 in 1940 to 832 in 1959 (Lawrence 1963:129). Lawrence also notes that:

> a planned land-use program began in 1937 in Calhoun County, when the U.S. Department of Agriculture set up its demonstration project for erosion control. But for several years before 1937 a program for reduction of crops had been in effect (Lawrence 1963:129).

Some of the cotton acreage was taken over by soybeans, while other was converted into pasture. Much was placed in timber, so that today Calhoun County has far less of an agricultural appearance than it did in the early twentieth century.

RESEARCH METHODS AND FINDINGS

Archaeological Field Methods and Findings

The initially proposed field techniques involved the placement of shovel tests at 100 foot intervals along transects placed at 100 foot intervals.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially by transect. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1 foot or until sterile subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered. A total number of 17 shovel tests were excavated along 7 transects.

Should sites (defined by the presence of two or more artifacts from either surface survey or shovel tests within a 50 feet area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

These proposed techniques were implemented with no significant modifications. A series of seven transects were established running primarily north to south along Cartwright Road and the western edge of the existing substation. Individual shovel tests were numbered to the west along these transects. The survey area was cleared of a mixed pine and hardwood forest and had little ground visibility. The topography in this area was level.

Sites would be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead agency in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

Analysis of collections would follow professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains.

Nevertheless, the archaeological survey of the project area failed to identify any archaeological remains. This is most likely to the distance of the tract from any permanent water source.

Architectural Survey

As previously discussed, we elected to use a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects which appeared to have been constructed before 1950 and which retained their integrity. Those which have undergone such extensive modifications to preclude their eligibility were not recorded.

For each identified resource an architectural survey form would be completed and at least two representative photographs would be taken. Permanent control numbers would be assigned by the S.C. Department of Archives and History at the conclusion of the study. The site forms for the resources identified during this study would then be submitted to the South Carolina State Historic Preservation Office.

Site Evaluation and Findings

Archaeological sites will be evaluated for further work based on the eligibility criteria for the

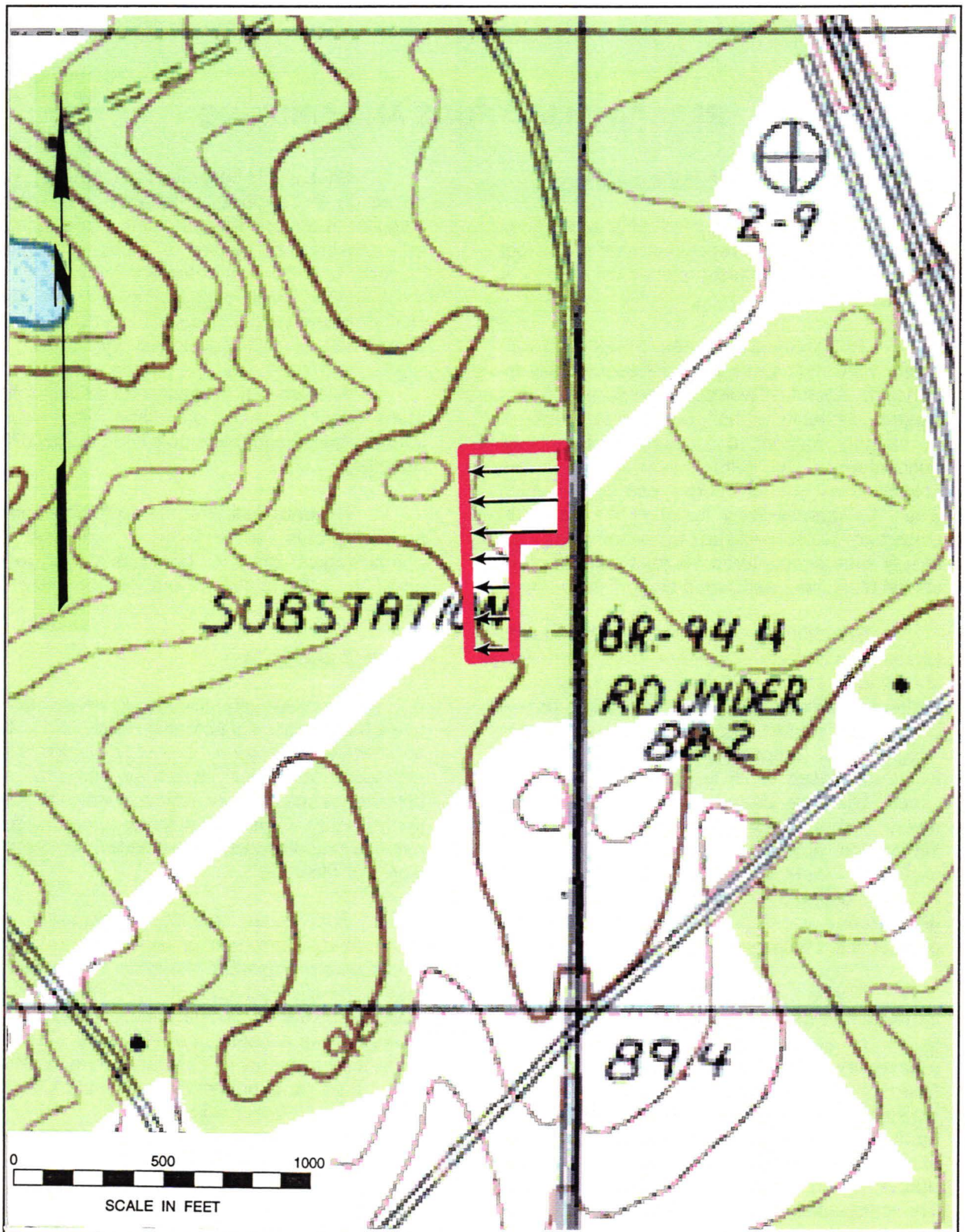

Figure 7. Survey area with transects.

National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.


Figure 8. Survey area with existing substation in the background.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

> the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site, providing a framework for the evaluative process;
- identification of the important research questions the site might be able to address, given the data sets and the context;

- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and

- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on each archaeological site's ability to address significant research topics within the context of its available data sets.

The survey failed to identify any additional structures that were in the APE which contain enough integrity to be eligible for the National Register of Historic Places.

CONCLUSIONS

This study involved the examination of 2.8 acres of land for a proposed substation situated in western Calhoun County, South Carolina. The tract is proposed for the construction of a distribution substation. This report, conducted for Mr. Tommy Jackson of Central Electric Power Cooperative, provides the results of that investigation and is intended to assist the company comply with their historic preservation responsibilities.

The survey consists of an area recently cleared of vegetation. the archaeological survey which included shovel testing, conducted at 100-foot intervals along transects placed at 100-foot intervals, revealed intact soils, but no evidence of cultural remains on the study tract.

The surrounding areas are still fairly rural with only a few structures near the project area. Nevertheless, an APE 0.5mile around the project area was examined, but no historic structures were identified which are intact and which appear to be potentially eligible for inclusion on the National Register of Historic Places.

It is possible that archaeological remains may be encountered in the area during construction. As always, the utility's contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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